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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/676,249      | 09/30/2003  | Lester F. Ludwig     | 2738-18             | 6374             |

616 7590 02/06/2007  
THE MAXHAM FIRM  
9330 SCRANTON ROAD, SUITE 350  
SAN DIEGO, CA 92121

EXAMINER

FLETCHER, MARLON T

ART UNIT PAPER NUMBER

2837

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|----------------------------------------|------------|---------------|
| 3 MONTHS                               | 02/06/2007 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/676,249

Applicant(s)

LUDWIG

Examiner

Marlon T. Fletcher

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply.

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-102 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-102 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-102 are rejected under 35 U.S.C. 102(e) as being anticipated by Smith et al. (6,018,118).

Smith et al. discloses a multi-channel signal processing system comprising: a transducer signal interface (102, 120) for receiving a plurality of distinct incoming audio electrical signals produced in response to vibrations of an associated plurality of vibrating elements; a plurality of signal processors (110, 170), wherein each processor of said plurality of signal processors receives a selected one of said plurality of incoming audio electrical signals, wherein each processor of said plurality of signal processors process a received incoming audio electrical signal to produce an audio output signal, wherein said processing of said received incoming audio electrical signal is performed by variably changing one or more signal attributes of said received incoming audio electrical signal (figures 1 and 4), wherein said one or more attributes is selected from the group consisting of: pitch, timbre, or timing (column 3, line 59- column 4, line 6);

and an output signal interface (112) for providing said audio output signal for each of said plurality of signal processors.

Smith et al. discloses the system, wherein at least one processor of said plurality of signal processors is controlled by an incoming signal processing control signal (column 8, lines 22-34).

Smith et al. discloses the system, wherein each processor of said plurality of signal processors provide said processing according to a selected one of a plurality of pre-programmed processing instructions (column 6, lines 38-50).

Smith et al. discloses the system, wherein an incoming signal processing control signal is used to select said one of said plurality of pre-programmed mixing instructions (figure 4; wherein synthesizer (112) mixes the incoming signals (column 3, lines 50-55).

Smith et al. discloses the system, wherein each processor of said plurality of signal processors further process said received incoming audio electrical signal by modulating signal amplitude of said received incoming audio electrical signal (column 6, lines 19-34).

Smith et al. discloses the system, wherein at least one of said plurality of vibrating elements is a tunable, fixed-pitch vibrating element (column 4, lines 42-45).

Smith et al. discloses the system, wherein at least one of said plurality of vibrating elements is a variable-pitch vibrating element (column 4, lines 42-45).

Smith et al. discloses the system, wherein each processor of said plurality of signal processors dynamically modulates the timbre of said received incoming audio

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electrical signal; wherein each processor of said plurality of signal processors changes the pitch of said received incoming audio electrical signal; wherein each processor of said plurality of signal processors changes the timing of said received incoming audio electrical signal (column 6, lines 38-64; and column 8, lines 22-59).

Smith et al. discloses the system, wherein said at least one outgoing mixed audio signal comprises a signal of MIDI format.

Smith et al. discloses the system, wherein said selection is determined by a switch (column 4, lines 52-55).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marlon T. Fletcher whose telephone number is 571-272-2063. The examiner can normally be reached on M-w, F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MTF  
1/31/2007



Marlon Fletcher  
Primary Examiner